

The Facts about the City Plan of Chicago

By H. Evert Kincaid, Executive Director, Chicago Plan Commission

In the July-August issue of the Bulletin there appeared an article entitled "The 1946 Chicago Master Plan" which contained numerous inarticulate and erroneous statements about the Preliminary Comprehensive City Plan recently published by the Chicago Plan Commission. In order to give readers of the Bulletin a correct version of the correlated elements of the plan and to endeavor to forestall further misunderstandings based on lack of information and prejudiced opinions, the writer has accepted the invitation of the Editor to point out salient features of the planning program which is being devised to make Chicago a better place in which to live and work.

Quite naturally, it is to be expected that there would be divergent opinions and a variety of interpretations accompanying the discussion of solutions to provocative urban problems and public issues. Experienced critics, however, armed with a wealth of factual information, do not disseminate biased or destructive comments on controversial topics. They prefer constructive, realistic, logical thinking as a basic characteristic of enlightening analysis and a distinct contribution to the collaborative efforts of many minds. It is not difficult to threaten the towers built by creative thinkers when unrealistic condemnations are utilized, but the test of ability is the submission of practical proposals and the willingness to embrace reasonable compromises which will help achieve broader planning goals and secure greater social gains.

City Planning is Not An Exact Science

However desirable it may be to recast existing transportation routes, re-locate established industrial and commercial centers, and rebuild blighted areas, these objectives cannot be accomplished without due regard for individual rights and matters of justice. As planners, steeped in theories for urban betterments, we might express ambitions to reorganize and rebuild large segments of our city into a pattern which would make for a pleasing arrangement — at least on paper. In all probability such a re-casting of the city, if it were possible and intelligently conceived, would create a more efficient, attractive, and desirable place in which to live. But such is not possible in a large city which has been built over over one hundred years and in which hundreds of millions of dollars have been invested under the property ownership privileges provided for in the constitution of the United States.

What do people think of the plans of those plan-

ners whose discontent with the existing city is so intense that they will be satisfied with nothing less than the privilege of re-casting the city in a high-handed and dictatorial manner? Are people willing to have their homes up-rooted, their factories torn down, their places of employment made remote, their stores removed, and their churches and schools dislocated, in order to satisfy the nebulous whims of unrealistic planners? No, they are not. They are well aware that even the most necessary and desirable improvements to the city are disruptive at best. They realize that life must go on while these transitions are taking place. They weigh carefully all proposals, even the most meritorious, by considering the long-term advantages versus the immediate inconvenience and bother. Recent difficulties in connection with the park and playground extension program illustrated this attitude forcibly. The city must have progressive improvements for the good of all, but they must be achieved in an orderly manner by evolution, not revolution.

Thus, while city plans must be long-range in their objectives, they must be practical and worthy of public support in proportion to the realism which they reflect. Balanced relationships between need and feasibility; between benefits to the public and costs of attainment; between idealistic desires and realities; are necessary parts of a good city plan.

City Planners Are Not Dictators

The civic leaders and the professional technicians, entrusted with the responsibility of guiding the growth of their city, must work amidst the encumbering network of existing physical improvements and legal restrictions. They are diagnosticians who view the condition of a city's physical structure, probe for underlying causes, and then prescribe practical remedies for urban ills. They cannot violate individual property rights unless constitutional guarantees are respected. Established, privately-owned, physical improvements cannot be destroyed to make way for public improvements, no matter how desirable and important they may be, unless just compensation under due process of law is given to the property owners involved. However, if the estimated costs of such projects are so high that their use cannot justify the expense to the public, there is slight chance that the program will be supported. If city planners are capriciously unrealistic in their work, their plans have little chance of receiving necessary community support or of satisfying community needs.

A Preliminary Comprehensive City Plan of Chicago

In the preparation of plans for the development and redevelopment of a city, it is necessary that an analysis be made of every parcel of land and of every conceivable use to which it might be put. Such a program has been followed by the Chicago Plan Commission, and numerous publications dealing with many aspects of the city plan have been made available to the public. Many months were spent in the assembly of data and in the compilation of facts pertaining to every municipal activity, public and private. Advice and counsel have been sought from every reliable source. Some of the most resourceful and experienced minds have contributed to the work of the commission. At no point along the road have prejudiced theories or groundless conclusions been permitted to permeate the program.

Thoroughfares have been planned in collaboration with experienced engineers representing every agency sharing the responsibility for carrying out the plans. Park and school site planning has been done with the aid and counsel of those who are familiar with the problems of development and administration. Improvement of transportation facilities is based on the suggestions and guidance of people who will operate them. Housing requirements for Chicago's people have not been arrived at by guess or by chance but have been determined after careful study of the opportunities for employment, size of families, the supply of existing good dwellings, and the potentialities of future population growth. Thus, the Plan Commission and its staff have acted in the capacity of coordinators, a proper position for any planning body dealing with the complex problems of a large city.

No one person is competent to judge the seriousness of the problems or to prescribe appropriate solutions. Such matters require the combined efforts of many. The plans are for the people; the plans must be made by the people. So, the Preliminary City Plan, which at this stage is a generalized guide plan is for the use of city officials and every other citizen — not alone the technicians. It is theirs to do with as they please. When the city plan is developed in greater detail and more is known about the potentialities of the future, every phase of the planning program will be clothed with detailed documents, descriptive material, and explanatory maps in order that the objectives of the plan will be clear to all.

The Plan Provides For Better Neighborhoods

In contrast to Chicago's existing heterogeneous land use pattern, the City Plan proposes the establishment of 514 orderly neighborhoods designed within a comprehensive system of transportation and within the areas needed for commercial and industrial development, wherein are provided the sources of employment. Within each neighborhood, 6,000 to 8,000 people can live in greater quietude and safety and still have convenient access to all necessary services. Near its middle will be an educa-

tional, recreational, and cultural center comprising of a grade school, a small quiet park, and a playground. It will serve all age-groups at appropriate hours during each day and evening. Fast and through-moving traffic will be carried on thoroughfares around, and not through, the neighborhood.

The Plan Provides For Better Communities

Groups of related neighborhoods become communities — 59 in number — each simulating a small city of from 50,000 to 80,000 residents. The community will contain a high school, a large park and athletic field, a major shopping center, and other services that may not be available within the neighborhood. This plan of community design for Chicago has been considered favorably by the Chicago Park District and a large number of new recreational sites are being located and acquired in accordance with the Plan. The Chicago Board of Education likewise has entered into collaborative efforts with other administrative agencies and has programmed new school developments to fit the neighborhood and community patterns.

The Plan Provides:

For Thoroughfares — Fast and safe movement of people and goods over a coordinated highway system which does not infringe upon residential areas.

For Local Transit — Extension and improvement of services in subway, street-car, motor-bus, and elevated railway systems.

For Transportation — Simplification and better integration of rail, water, and air transport and terminal facilities.

For Utilities — A more orderly arrangement of land uses makes economies and betterments possible.

For Private Land Use — A better balance and more harmonious relationship between residential, commercial, and industrial districts.

For School, Park, and Play Areas — Adequate educational and recreational space for all age-groups in convenient and suitable locations.

For Public Building Locations — Government structures functionally grouped and directly accessible by local transit and by thoroughfares.

Chicago's Plans Fit The Regional Plan

Nothing in the City Plan is in conflict with plans for the environs of Chicago. All features dovetail with the plans for highways, drainage, recreation, transit, and transportation of surrounding municipalities and counties in the states of Illinois and Indiana. While the responsibilities of the Chicago Plan Commission are legally confined to the corporation of the city, the Commission has studied all of the conditions of the metropolitan area which will affect Chicago's future growth. In these activities there has been close cooperation with the Chicago Regional Planning Association and with the public agencies serving the metropolitan area.

The Plan Provides For Greater Employment Opportunities

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The Chicago Building Code

Notwithstanding that the Chicago City Council decided to revise the Chicago Building Code seven or eight months ago, apparently nothing has been done other than passing an appropriation, appointing an Advisory Committee, and lastly appointing an Executive Director.

Notwithstanding that an Executive Director had already been appointed, the Advisory Committee certainly could have discussed a plan of procedure, whether the ordinance is to be in an entirely new form, or in the same form as the existing Code.

The Analysis & Recommendations of the Chicago Association of Commerce calls attention to innumerable items of engineering, fire resistance, heights of buildings, construction types, areas that the Committee could have developed into code sections for submission at the first meeting under the Executive Director.

The Analysis is critical of the existing Code for specifying certain materials that may be used; obviously that was done because these materials had been submitted to a standard test by the Bureau of Standards, and some that were inserted by the Council's Sub-committee on Building Code.

We ask, how otherwise would this have become known to Architects!

The Press and Public does not know that the Bureau of Standards has set up regulations for testing of materials, that must be made under the supervision of trained technicians in laboratories especially designed for the purpose. The results ob-

tained by inventors or manufacturers of tests made without the supervision of impartial technicians are no more acceptable for building materials than puffing up clever advertising.

Laboratories arranged and manned to perform standard tests are not self-supporting and must receive remuneration for their services, not from the City but from the inventor or manufacturer. Possibly manufacturers refrained from the testing of their material on account of the cost of a test, or may have thought that the City should pay for the test.

If the inventors or manufacturers of new material will arrange for standard tests by recognized physical laboratories and the material is proven by the test to resist fire or stress, or both, for a certain time or load, some means will have to be found to make it known to the building industry. Manifestly, however, unless the procedure is changed from what it is now it will still be obliged to run the gantlet of the Council, and its Committees.

Some of the proceedings at the meetings of the Council's sub-committee for the existing Municipal Code are illustrative of the Council Committee's methods; for instance, a whole section submitted by the Ordinance Committee of Architects and Engineers, concerning the construction of high-class prefabricated steel houses similar to such houses exhibited in A Century of Progress, was deleted by the Committee, on the demagogic plea of an Alderman that permitting such construction "would take work from our carpenters."

At another meeting, the Committee banned the use of a material for use of dry wall construction buildings of ordinary construction, where the resistance to fire of the material was not required, after a representative of a craft held a piece of material in front of the Chairman of the Council Committee, and burned the paper facing with a match to prove that it was not fire-resistant.

If Council Committees are permitted to over-rule the decisions of Code Committees of experts, and if a Board of Standards & Appeals with power to make determinations that would be final, is not created, the situation regarding tests of new materials will not differ from that existing under the Code of today, and the whole effort, all the time required by the Committee's members will be wasted and the expense a waste of tax-payers' money.

—Richard E. Schmidt

Michael Reese Hospital in Chicago, finding it is in an area that is, to a large degree, sinking into slums, has appointed a planning staff, with Walter Gropius, as Architectural Consultant and Walter Blucher as Planning Consultant, to replan a 7 square mile area bounded by Lake Michigan and the Pennsylvania Railroad from east to west and from 12th Street to 47th Street from north to south. There has been formed the South Side Development Association for this planning work. It has an executive committee under joint leadership of Negroes and whites, public housers, real estate men, industrialists and labor leaders, Catholic and Protestant clergymen. We wonder what co-operation the new association has or will have with the Chicago Plan Commission. In reading the long description of the hospital's ideas in the September Architectural Forum, doubt arises in our mind on many points.

Illinois Society of Architects September Meeting

The first meeting of the Society's new year occurred on September 24 in the club room of the Chicago Art Institute with an attendance of 64. The dinner at 6:30 P.M. was followed by the regular meeting which President G. Harold Smith called to order at 8:10. He called upon Secretary Koenigsberg to read the minutes of the June meeting. These were approved as read.

The President next introduced 4 new members: Messrs. Herman H. Bruns, Edwin L. Cheatle, Warren Alden Koerner and Frank J. Sertico. He announced the October meeting to be held in Peoria on October 26-27. This is a return to the policy established before the late war of holding at least one meeting during the Society year in a city of Illinois other than Chicago. Financial Secretary Palmer obtained signatures of members who were ready to signify their intention of attending the Peoria meeting.

Since neither the President nor the Secretary had important correspondence to report to the membership, the President proceeded to introduce the first speaker on the program of the evening. The program subject was "New Materials in the Building Industry." Under these were radiant heat; plumbing fixtures; cement; new glass products.

The first speaker introduced was Harold Lockhart of Bell & Gossert Co. whose subject was Radiant Heat. Historically, radiant or panel heating is very old in theory. Two thousand years ago the Romans used it and, according to the speaker, recent researches have shown that four thousand years ago it was authenticated in Korea. It was revived in 1900 A. D. in England. Perhaps the earliest application in this country was its use in the British Embassy at Washington, D.C. where it was used concealed in the ceiling. The question of its control was discussed by Mr. Lockhart, and then came consideration of baseboard panels, a more recent introduction. Then the audience put questions. Question: Are you considering oil or water as a heating medium? Answer: Both are used, though in my opinion water is preferable. Question: Does base-board heating heat the wall? Answer: Yes, though convection heat exists in all radiant heating. Question: Is ceiling heat more efficient than floor or wall? Answer: Floor heating is the most efficient.

The next speaker programed was Russell G. Creviston of Crane Co. Mr. Creviston has spoken before the Society on earlier occasions, sometimes as the representative of The Producers' Council. He is an able speaker who knows how to make his words carry. On this occasion, Mr. Creviston was called to other duties and hence could not be present. As a substitute, George Hoffman appeared. His subject was "Plumbing Fixtures." Untrained, and probably inexperienced in talking before assemblies, Mr. Hoffman's rapid articulation was unintelligible to his hearers much of the time. However, he referred to change in pattern of bathtubs and lavatories, and what he said of w. c.'s was not understood. He spoke of colored ware that was to be produced and put on the market, and during much of his time he dangled some sort of a valve in his hand. What he had to say about this object witness cannot testify to. There was a question or two which the speaker attempted to answer but which failed to register among the hearers. There are schools of speech that many speakers could profit by attending.

H. F. Summershield of the Portland Cement Assn. had the subject of "Cement" to discuss. He began by telling of the advances made in what is known as Air-Entrained Portland Cement and explained that this material was a recent development to overcome scaling through abrasion or contact with salt and other deleterious substances. This new material grinds portland cement with water and aggregates resulting in concrete having minute and well distributed air bubbles and other characteristics not common to untreated portland cement. These air bubbles are non-communicative. The product has workability and is more impermeable. Its 10% loss in strength is of little or no consequence. He next took up architectural concrete cast horizontally at the building site, preferably on the floor the concrete is to enclose. It is called tilt-up construction. Of course, the idea of casting concrete and

setting it up in the building is not new. What is new is idea of composite layers such as insulation, hollow block and what have you, before reaching the final exposed architectural concrete, which is the top layer in the horizontal casting. When sufficiently hard, the slab is then tilted along one edge and set in place. The speaker said with method thinner concrete walls were possible. Question: this system now actually used? Answer: Yes. It is now normally in use.

The last on the program was F. M. Waterhouse of Owens Corning Fiberglass Corp. He appeared with a satchel full of new and novel products. Though a poor speaker, he at length held attention through showing model samples of what today produced in New Glass Products. He began by saying that in the 1893 Columbian Exposition at Chicago a gown was exhibited by a foreign power. Nothing much was done in this country with the product until 1936 when fiberglass appeared. It was not pushed in commercial work until after the war. Now there is available what is known as "white wool" and there is refrigerator insulation, pipe and roof insulation, felt cloth, decorated clothing and napkins, cord or cordage that feels like silk and so strong 2 men sitting on opposite sides of a table could not break it. There were questions and answers which did not add much to the samples shown.

This was the end of the fixed program. Benjamin Franklin Olson announced the death of an old member, Mr. Strauch, who died about September 14. An obituary on Mr. Strauch will be in the December 1st issue of the I. S. A. Bulletin.

The meeting was adjourned at 10 P. M.

Members gathered in small groups after adjournment, expressed criticism of some invited speakers using the occasion to give sales talks. Members do not come to these meetings to hear sales talks. They want to learn the advance in building appliances and methods applicable today developed since the outbreak of the war.

Report of the President

The past two summer months have seen little but routine matters for action by the Board of Directors and officers. Committee chairmen have been appointed and work is under way on the coming season's programs which, it is expected, will be better than ever.

In my last report mention was made of the ruling by the City Water Pipe Extension and Plumbing Departments that an open break, with surge tank and accessories, must be made in a water line supplying air conditioning and refrigeration equipment. Mr. Ralph Burke, who was appointed by Mayor Kelly to hear all interested parties has handed down a decision as follows; "It is my opinion, therefore, that while an 'open connection' is acceptable the best interest of public health and welfare do not demand a change in the present requirements under which refrigeration and air conditioning equipment is installed with a solid connection to City water supply in which an approved pressure control valve and an approved check valve are placed in the water supply line at the discharge is through an 'open connection' to the sewerage system."

The following men, all in the Chicago district, have been elected to membership in the Society: Edwin L. Cheatle, Mortimer Hill Hawkins, Thomas O. Menees, M. O. Nathan, Allan A. Lipsey and Andrew G. Stoecker.

The October meeting will be held in Peoria, October 26th, as the seventh Statewide meeting. The date is on a Saturday so it is hoped that many architects will take advantage of the weekend to get away from the steady grind and enjoy themselves in the company of their fellow architects. Mark this date on your calendar. All architects, whether Society members or not, are welcome. This includes the wives.

—G. Harold Smith, President, I.S.A.

The Chicago Chapter, A.I.A., following the precedent set in 1945 in holding no meeting for the general membership in September, continued the omission in September 1946. So this I.S.A. Bulletin has no Chapter meeting proceedings to report.

Job Training Committee Report

This program, developed by the "On The Job Training Committee," of the Chicago Chapter, A. I. A., has been approved by the Executive Committee and is processed by the State of Illinois Board for Vocational Education.

Upon receipt of this approval, information will be sent to the Veterans Administration and members of the Chicago Chapter will then be eligible to participate in the apprenticeship training of Veterans of World War II.

The general procedure is as follows:

For the Veteran:

He must find an approved employer.

He must file VA form 1950 for a certificate of eligibility.

He must be willing to take 144 hours per year of organized instruction. The government pays tuition fees and material.

Upon approval, he is entitled to a subsistence allowance of \$65.00 per month, if single — \$90.00 if married — in addition to the minimum wages indicated in the program.

For the Employer:

Approval of the program and of the employer is automatic for all Chicago Chapter members who wish to follow the outlined program.

The employer must be willing to send to Veterans Administration a wage certificate each month upon request.

The employer will return to the VA the Veteran's Certificate of Eligibility properly executed. He will then be duly notified of authorization.

Application forms and information can be had from the State of Illinois, Board of Vocational Education, 176 West Adams St., Chicago, Illinois.

Committee: Pierre Blouke, W. Fred Dolke, Walter Sobel.

Dept. of Bldgs. Chicago

New Procedure for Permit Issuance

With the co-operation of the Co-ordinator of Permits and Inspections, a study of permit issuance has been under way for the past two years. The new system of Permit Issuance is the result of that study.

Starting September 3rd, all applicants for Building Permits will be required to submit their plans and applications to the Department for which they will receive a receipt. The plans are then examined by all Bureaus necessary to issue a Building Permit, after which the applicant is notified. He may then appear at the Department, and, after payment of the fees, receive his Building Permit.

At the present time it is necessary for any one applying for a Building Permit to visit each examiner in person and submit his plans. This has been time consuming for Contractors and Builders. The new procedure will eliminate this and also increase the efficiency of the Department.

In order that the information submitted be complete in all details, it is suggested that the architects drawing the plans shall also prepare the applications. —August 23, 1946

What Caused the Building Shortage

"In the 1920's, the decade of our biggest building boom," explains House & Garden, "housing started to slump and never again equalled its all-time high of 1925 when slightly over 900,000 houses were erected. The 1930's averaged 273,000, with 1933 hitting a low of some 90,000. Late in the 30's building gathered momentum again but never did much to alleviate the need that had accumulated; after mid-1940 not even normal replacement demands were being met . . . Between ten

and eleven million houses existing today are sub-standard; 200,000 are destroyed annually; and twice that number of new families wish to set up housekeeping each year. We ought to build a minimum of 12,000,000 dwelling units in the next ten years." Since the "condition as well as the number of houses was going downward; repairs and remodeling were often foregone; people got along with what they had."

Roos Succeeds VanDerpool at U. of I.

The appointment of Dr. Frank Roos, recently Professor of the History of Art at Ohio State University, as Professor and Head of the Department of Art at the University of Illinois, Urbana, is announced by Dean Rexford Newcomb of the College of Fine and Applied Arts. Roos succeeds Professor James VanDerpool who resigned recently to accept a position at Columbia University.

Born in Chicago, Roos received his baccalaureate training in fine arts at the University of Chicago where he was graduated in 1926. At Harvard during 1927, 1928 and 1931 he held the Carnegie Fellowship in Fine Arts. Professor Roos has written two books, An Illustrated Handbook of Art History and Writings on Early American Architecture.

Dr. Roos has won distinction in the field of research in American art and architectural history.

The Department of Art at Illinois offers four curricula: Painting and Illustration, Commercial Design, Industrial Design, and Art Education. The Department is one of four co-ordinate departments comprising the College of Fine and Applied Arts which in 1945-46 enrolled 1123 professional students and in addition several hundred others who pursued some studies in the fine arts. The Art Department has a staff of twenty-seven full-time instructors.

New Parking Ordinance Proposed

All future structures in Baltimore, Md., built for the accommodation of large crowds of people — with the exception of churches — would be required to provide off-street parking space for their patrons, under provision of a zoning regulation now being studied by the city's planning commission.

The ordinance provides that every building principally used as a general auditorium, theatre, arena, night club, hall or stadium (or other similar place of public assembly thereafter erected, altered or added to) would be required to maintain off-street parking space equal to 200 sq. ft. for each ten persons of the total seating capacity. A hotel, apartment house, club or similar building, would be required to provide at least one off-street parking space for every ten rooms or suites of rooms in the building. — EN-R

Pentagon Building Again

The Pentagon Building, in Washington, a five-sided, four story, mile-around structure, covers 42 acres and houses 42,000 workers. It has its own park; its own bank; its own office to issue railroad tickets; its own taxicab and bus terminal; a cafeteria seating 6,000 and serving 25,000 meals daily; six beverage bars which serve an average of 30,000 persons daily; a telephone exchange with more than 86,000 miles of inside trunk wires; a force of 700 janitors and charwomen; 288 guards and 42 members of the Military Police regularly assigned.

The 16 miles of corridors run in a maze around the five sides, cross-cut at intervals by shorter halls. Employees know their way to their own offices, but visitors are directed by guides.

Among other things, this outstanding building has 21,000 desks; 140,000 chairs; 200 rest rooms, averaging 10 wash basins each; 650 water fountains. It has a soda bar, 500 feet long, also barbershops, and a clothing and notions store.

QUESTION: How many W.C.s??

The Legal and Financial Aspects of Building Planning

A Paper by Ralph Walker, Architect, New York, F.A.I.A.

Read before "An Institute on Library Buildings," Graduate Library School, University of Chicago

One of the oldest saws in world thoughts is that — "The worker is worthy of his hire". It has been expressed in many ways and in many tongues. This paper is devoted to the development of relationships between an owner who wishes a building and his architect and later his builder.

Any owner desiring a building must in these days seek technical aid to bring his wishes into fulfillment. No matter how well he knows the workings of the field in which he is interested, the fitting of a building to his requirements will necessitate thorough, careful consideration not only of the present but, also, some idea of what the future will bring about. One glimpses this future through two mediums, the regretful experiences of the many, as well as by the keen imaginings of inventive and pioneering minds.

To get the best results the owner should seek to set up a team — in its true sense — of himself, a competent architect, and resourceful builder. In these days of complications, of great magnitudes, of specialization, the qualities of designer and builder are separate and are rarely found associated in the same man or firm. This is especially true if a non-standard building is desired. Libraries are anything but standardized at the moment, largely because the needs of each institution which may contemplate a new building are varied and not the same.

These needs must be ascertained and stated but are not easily come at as they are often a matter of prejudice, a matter of trying to solve the failures of yesterday rather than attaining a solution of the problem itself. There is, therefore, a need for a research into every new building program, no matter how often the problem has been solved and built; a research into what is needed in spacial relationships, in philosophy of use, into what others are doing, as well as into the many failures in existing buildings. Care should be taken, however, not to overlook the sometimes hidden successes. Moreover the research, if it is to have any real meaning must be an active and cooperative participation by owner and architects, for it is vital that they together create a progressive program. Planning means, besides solving today's needs, not placing too many and too severe obstacles in the way of future change. For the moment we curse monumental building and its rigid enclosures. Who knows whether tomorrow we may not want again associated with the processes of learning the symbols of a new form of grand manner, if only as an intense reaction against the present common demand for the leveled spoonful.

The selection of an architect in these days should be based on his apparent willingness to study the owner's problems anew and not because he is known to design according to some style-manner past or present, or even because he has designed many libraries — this latter experience is in no way to be belittled. But more important is his willingness to see the need from another and fresh point of view. It is impossible, of course, to avoid prejudice, but if owner and architect are both flesh-minded, a new step in understanding always will be made. The owner and architect must be friendly, neither the one nor the other being high hat about his special knowledge. A marriage is desired and not a combat.

The architect should be employed as a professional man; engaged because of his integrity and standing, and in this sense he is most worthy of his hire. There are several ways the architect's interest may be engaged: One, on a percentage fee covering the cost of the building and such parts of the furnishings as the architect may design or help purchase.

While this is the common practice, it has seemed to many to have made of his professional work a gamble as to whether the architect should gain a livelihood or not. There are many disadvantages to the percentage fee. The most obvious — that the amount of design work done by the architect has little relation to the cost of the building; the cost has less relation to the quality of the design. In times such as these of unstable price levels, the designer's earnings are dependent upon whether the building costs more or less. No matter how honest the practitioner may be he is forced to hope it will cost more. This method is customary for government work as it is considered necessary to engage the profit interest of the architect. Any thought of low design cost to the owner will raise a question as to who gains if the architect's interest is only on a dollar basis.

Another way the architect can be engaged is upon a direct fee for his personal or partnership services plus a budget of reimbursable costs such as overhead, draftsmen's salaries, blueprints, etc., and while this budget may not be guaranteed it can be made sufficiently accurate to enable the owner to assess the limits of his obligations. This, of course, tends to place the gamble in part on the owner. His ability to make up his mind and make lasting decisions will materially affect the design cost to him. He will appreciate that while improvements in design may be expected on more prolonged study it is his budget which is being affected; that at some time he must make up his mind to build with the knowledge he then has. If the work is done on this basis the design may be divided into several compartments as follows.

Fundamental design or studies; This period should include the necessary research, i.e. by travel, by observation, by interview, and by questionnaire. It should be used to develop not only the recognized body of opinion but also, and more important, those fringes of imagination which lead to new thought. During this period of design the fundamentals of the completed design should be arrived at in well thought out solution — not only the philosophy underlying the space design but also the engineering in its structure, in its mechanical problems, i.e. each part of the complicated machine we know as modern building. The better studied all this fundamental work is the less change there will be in the next stage of the work, for when this fundamental design is approved in normal times (normal here meaning periods of slow price change) with the accepted fundamental design should go a definite cost analysis and statement. Here the reality of the building cost may be checked by employing one or two reliable builders (without obligation for future employment) to make an accurate take off of materials and labor. In days when buildings cost millions of dollars rather than thousands, every effort should be made to develop a better analysis than either cubage or area costs.

This stage may take from six months to a year, dependent upon the complications of the desired building.

At this point with fundamental design completed and approved, with definite basis of cost, the next step or working drawing stage can be started, and if on a fee basis under a separate contract with the architect prepared on the known scope of the work. These drawings are also known, with the specifications, as the contract documents. They are careful, precise, detailed information, enabling the builder to order materials and his labor, to organize bidding for the subcontractors who do the mechanical and electrical trades within the building. It is obvious that the more carefully these de-

Plans are prepared the more economically and more expeditiously the building will be built. It is to the owner's interest that this work be carefully and thoroughly made and engineered. This stage of work also needs the close cooperation of the owner and his architect. Weekly meetings should be held so that both the owner and the architect are aware of the other's considered opinions. Here, as well as in the fundamental design period, frank discussion and exchange of opinion can only help create a good design result. The owner, if he is to be finally satisfied, should carefully consider details and the quality of materials. Most owner dissatisfaction comes from his own neglect in learning about his building in the design stages. This working drawing stage generally takes from six to eight months.

Finally the contract documents having been completed, and the builder employed, the architect offers the services of: one, supervision — which means a general overseeing of the work, and, that it is in conformation, again in general, to the drawings and specifications; and, two, inspection — this inspection means the employment of resident inspectors who specifically and in detail daily oversee performance and check quality and workmanship.

There are several ways of employing the builder: one, through a lump sum figure gained in competition with firms of equal merit. This type of contract is generally, all things being equal — i.e. builders merit — awarded to the lowest bidder. (This means on the architect's part that the working drawings must have been fully completed.) This is the generally accepted method of awarding contracts to builders. It assures the owner, unless he makes serious changes, the limit of building cost to which he is obligated. But it makes a gamble for good construction on whether the builder's estimates are accurate and whether his own profit is assured. However, many owners of large building experience believe this type of builder employment means just as good a building at lower cost and in faster time. It supposedly places the builder on his mettle because his own pocketbook is concerned. The owner, however, loses one thing of great importance, and that is the experience of a good builder while the working drawings are being made. This experience may mean more economical methods of building — a buyer's knowledge of the materials in the market and the builder's own experience with them. It also means that what saving may be made in the purchasing of materials or in the employment of subcontractors will benefit not the owner but the builder.

Another method of engaging a builder is as a professional manager in the art and science of building, one whose interest is coincident with that of the owner. I have spoken of the desirability on the part of the owner of creating a team composed of himself, supposedly an intelligent owner knowing his own needs, a competent and imaginative architect capable of translating these needs into the technical language of space and material, and also a resourceful builder whose sole interest should be the further translation of this data into sound physical reality.

Where possible and permitted this latter way of employing the builder has many advantages, especially if he is engaged during the development of the working drawings when his knowledge and experience can supplement that of the owner and architect. I think here it may be restated that the knowledge necessary to construct a non-standard building, one developed to meet special requirements, can not be accomplished by any one agent alone.

Another advantage is, of course, that with a stated fee for the builder's services generally stated against a period of building time and including his office overhead and including his profit, the owner may accumulate the savings on purchasing to his own advantage.

The disadvantages are assumed to be and are often stated

that the builder under this form of contract has no profit interest in getting the work done. The contrary is more apt to be true in that the office overhead and operating personnel may actually show decided financial losses to the builder. It is obviously to the builder's advantage, and therefore profit, to conclude the building operation as soon as possible.

I wish to say that any building project which does not proceed swiftly to its conclusion carries a loss to both the architect and builder alike. The ideal client of both is one who knows what he wants, makes the necessary decisions quickly, and then sticks to them. Any other client is, frankly, a "pain in the neck".

To restate this method: It is one of paying a fee for the builder's services, including his office overhead, his profit, and any other expenses which are normal to carrying on the builder's work; and then all other costs are according to an agreed upon budget between owner, architect and builder, and against which all purchasing is tested. Practically all forward looking building here in America has been constructed on this basis.

In choosing a builder for this type of contract, a group of constructing firms in fair competition with one another should be invited to state, at a meeting with the owner and architect, the proposed organization to handle the work both in office and in field, the buildings which they have built as a team, their experience in the special type of work in which the proposed building lies, the fee and their method of financing the job.

The competition is not one of fee but of qualifications as they then exist within each organization, and the readiness of a competent team within the builder's organization to do the work. This form of contract may be limited by law in relation to certain governmental agencies, but it is my opinion that wherever possible it produces the best results.

Large building construction has been carried on contractually with a mere exchange of letters. One architectural firm has designed work up into several hundreds of millions in value on a one page letter agreement.

While every contract must carry automatically the right of cancelment upon dissatisfaction or disagreement, many other troublesome difficulties will be avoided if a simple contract stating the terms of employment is arrived at by owner and architect. It is a general custom to make more elaborate and defined agreements with builders. In both cases no harm will be done and much saved if the contracts for both with the owner are clear and well defined.

To insure the owner's interest in obtaining a good design and building result he should take the following steps:

1. Engage a competent and imaginative architect.
2. Both owner and architect engage in a research concerning the owner's needs and possible solutions.
3. Try out the ideas developed on other men experienced in the field, here — other librarians — but again do it together as owner and architect.
4. Develop a program for the building.
5. The costs of the building as represented on the approved fundamental drawings should be as accurately measured as possible under the market circumstances.
6. Owner and architect should have meetings often and engage in a free discussion of the plan merits, each permitting the other to bring forward new ideas. When the building is finished the owner, if he has been open minded, may find that the building result is what he needed and not what he first wanted.
7. Take all the time necessary to arrive at a real fundamental plan within the determined cost limits.

There is no royal road to a fine building because while it may have been most cleverly rationalized it may yet fail because it lacks a spirit, that undefined essence which makes

a thing work well even when it can be proved inefficient. The architect must have achieved more than an efficient plan, and this is especially true in case of libraries, for if Winston Churchill is right, and I believe that he is, then the shape of a building has the power to shape the men who occupy it. The library must be more than a work shop, a laboratory, it must help direct men's thoughts beyond the immediate task into the imaginings necessary to promote larger aspirations.

In closing, I would suggest that the librarian owner obtain a copy of "The Handbook of Architectural Practice", published in 1943 by The American Institute of Architects. It will give the owner an insight into the contractual relations now existing in the building industry. To the owner it will offer the opportunity of asking intelligent questions.

The best way for an owner to avoid pitfalls in building construction is to set up a cooperative spirit in the construction team of his choice. The owner has a large responsibility in achieving a successful building.

FHA Planning Hints Bulletin

A revised edition of the Federal Housing Administration's bulletin "Principles of Planning Small Houses," has been printed and is available free to architects and builders at local FHA field offices.

Chief purpose of the bulletin is to stimulate and encourage the designing of modest type homes at reduced cost without sacrifice of comfort and convenience or sound construction and reasonable maintenance expense. FHA advocates reduction of building costs by effective space economy.

The Editor: Following your advice I bought a print of the "Master Plan 1946 for Chicago" as published by the Chicago Plan Commission.

As I am interested in the solution of the Chicago RR traffic problem due to a very active part I took in the Milwaukee track elevation, the double tracking of the Milwaukee RR to Omaha, the Spokane and Cleveland Terminals and other good size problems such as the Gary Steel Plant, etc. I studied the Master Plan 1946 quite thoroughly to find a clue to the solution of the RR problem. However, the Master Plan 1946 offers no solution at all, not even a hint as to how this most important question of the RRs could be solved!

—G. R. Gehrandt, Research & Developing Engineer,
Evanston, Ill.

Selection of 25 of the 40 architect-engineers required for VA hospitals (76 new institutions) has been made. The Veterans Administration selects the site and turns the project over to the army engineers who work out a program of requirements. This information is then turned over to the selected architect-engineers. The largest structures are 1000-bed plants.

It's nothing much to think about,
But every now and then
I wonder where Mahatma Gandhi
Carries his fountain pen.

Proposed Ill. State Museum Building

In July the State of Illinois issued a second edition bulletin on the proposed new Illinois State Museum Building at Springfield to be built after plans by the State Department of Architecture and Engineering. The front page shows photographs from the model of the exterior by Bartlett M. Frost. Pages 4, 5, 6 and seven show floor plans.

The first story exhibits will tell the story of Illinois from the earliest knowledge of the region when it lay at the bottom of a prehistoric ocean.

The second story, reached by escalator, stairs or elevator are world exhibits. Here, too, are administrative offices, lecture rooms, reading room, a museum library for staff and public. A mezzanine provides laboratories for visiting students.

The third story houses the art galleries. On this floor will be offices and work rooms for artists and scientists who make up the varied staff of the museum.

The basement has the junior museum, auditorium with stage, shipping and receiving room and carpenter shop. Exhibits loaned in the State are built and repaired here, arranged and made ready for circulation. Heating plant and machinery for equipment are located in extensions beyond the museum walls proper.

Purves in Paris — U. S. Building Industry

Edmund R. Purves, Director of Public and Professional Relations of the A. I. A., spoke in Paris, France, early in September before the International Technical Congress under sponsorship of the American Society of Mechanical Engineers. Purves sounded the keynote of the American delegation saying that private enterprise in the U. S. will successfully fight off any trend toward socialization of the construction industry. He said the industry is by no means a cohesive, unified group; it is a collection of more than half a million small, individual businesses, plus a handful of large businesses. He predicted the post-recovery period will see a return of private enterprise with bureaucratic domination "retired to its rightful position of liaison." He said further that if the industry is allowed to take care of itself, its capacity to work out its own salvation will more than suffice. Interference, it has been amply demonstrated, breeds obstinacy if not rebellion.

First Six Months "Regrettable"

"The regrettable fact that only about 40,000 of the new conventional type and prefabricated homes started during the first half of the year were completed by midyear, as disclosed in the recent report by Housing Expediter Wyatt, is due to confusion and delay on the part of the federal government during that period.

"The OPA's decision to withhold badly needed ceiling price increases on low-cost materials prevented the starting and completion of thousands of homes and has more than doubled the length of time required to complete the average dwelling unit.

"The output of many scarce building products has been only half to two-thirds as great as it might have been in the last seven months had the OPA and other interested federal agencies acted promptly to remove the pricing bottleneck which they belatedly recognized and eliminated and to assist manufacturers in obtaining housing needed for additional workers.

"If the Housing Expediter and the OPA are able to speed up production of scarce raw materials needed in the manufacture of building products and if no new labor difficulties arise, material shortages should cease to be a bottleneck in home building by the end of the year."

—Douglas Whitlock, Chairman,
Advisory Committee, Producers Council.

(Continued from Page 2—Column 2)

Optimism about Chicago's future employment opportunities is justified. Although some industrial establishments have moved outside the city, most of their places already have been taken and much additional space is required for the location of new arrivals which will swell the total number of manufacturing plants in Chicago to an unprecedented level.

It is one of the purposes of the City Plan to guide new industry into planned districts, but it is also an objective to weave appropriate industrial development into or adjacent to nearly every community area throughout the city, thereby bringing opportunities for employment closer to places wherein people live. With technological improvements in equipment, better designs, and more attractive landscaped settings which are characteristic of the new industrial structures being planned by enterprising architects, it is no longer necessary or desirable to isolate manufacturing plants far away from residences. With Chicago's great diversification of manufacturing carried on mostly in small plants, it is not at all impractical or undesirable for these plants to be located in conjunction with all elements of transportation needed for their purposes and integrated in close relationship to the home areas. This pattern may appear unusual on a map, but it is a practical and common-sense arrangement on the ground.

Plans for the Central Business District

The "Loop" area of Chicago is the only major business section of any large city which has remained in its initial location. That fact, in itself, proves that the location merits such continued use in the interest of the city and of the owners of individual properties therein. The Central Business District is a concentration of commerce, not only for Chicago and its metropolitan area, but for the entire Midwest. Plans for future Chicago are founded upon the premise that the Central Business District will not be affected seriously by any trend toward decentralization of people. To the contrary, the District may become an even greater center in which people will seek broadened opportunities for trade and amusement. Thus, all of the factors of transportation, parking of vehicles, use of land, and the location of structures in which to conduct public affairs, are details of plans for that part of the city.

Space in this article does not permit description of all of the proposals, but perhaps it is sufficient to say that, in view of the fact that the railroad terminal matters, the extension of the transit system, the control of vehicular traffic movements, the automobile parking problems, and the need for a public administrative center are being considered by the Plan Commission in collaboration with the action agencies involved, the plans that are to ensue will be carefully related to the Comprehensive City Plan. The Chicago Transit Authority, the Chicago Association of Commerce, the State Street Council, the City Council Committees on Railways Terminals and

Traffic and Public Safety, the Railroads Committee on Terminals formed at the request of Mayor Edward J. Kelly, and various other groups are cooperating fully with the Plan Commission in vigorous efforts to complete these plans which are so necessary to the future of the Central Business District. In this manner, duplication of effort is avoided, and the scope of the planning is broadened beneficially.

The Realization of Plans Requires Action

Chicago has demonstrated, and will continue to prove, its ability to do big jobs. It can be justly proud of a long list of achievements in making improvements which are renowned throughout the world. Its lake front development, conceived by planners and executed by city officials and civic leaders, is the envy of almost every waterfront community in the country.

The Preliminary City Plan accents the need for concerted action by all to face squarely the problems that have accumulated at such an alarming rate during recent years and which now threaten large sections of our urban residential districts. These plans require action at the earliest possible date. Expressways must be built to accommodate the ever increasing volume of traffic. Transportation of all kinds must be rehabilitated and extended at the earliest possible time. School and park facilities must be developed to help create a proper environment for the neighborhood and to provide increased opportunities for education and recreation. These and many other improvements cannot be deferred too long.

Thus, it is important that the City Plan be discussed by neighborhood and community associations, service clubs, social agencies, and the professional and trade organizations, but discussed constructively and in the interest of the people on whom will fall the burden of payment for whatever is to be undertaken. Undoubtedly, many changes in details of the plan will be made. A few, perhaps, will result from ill-conceived compromises forced by expediency or by minority groups, but most, it is believed, will be improvements brought about through more mature consideration by an informed, enlightened public after appropriate discussion of the proposals of the official planning body of the city.

Judgment on the Preliminary Comprehensive City Plan for Chicago may well be summed up in the words of a prominent civic leader, who said, "While there are many features of this plan that can and, no doubt will be adjusted as further planning progress is made, one statement can be expressed without fear of valid contradiction: The achievement of the proposals set forth in this plan would make Chicago unquestionably the outstanding city in the land."

*Sir Christopher Wren
Was dining with some men.
He said, "If anyone calls,
Say I'm designing St. Paul's."*

—E. C. Bentley — from *History for Beginners*.

U. S. Forest Products Lab Publications

The following reports on forest products developments in Germany during World War II were prepared by members of the Forest Products Laboratory while assigned to the Joint Intelligence Objectives Agency. Each report is available for distribution by writing to the Laboratory at Madison 5, Wisconsin.

1. Manufacture of pulp and paper and related products from wood in western Germany.
2. Modified and improved wood in western Germany.
3. Production and fabrication of glued wood products in western Germany.
4. Production of vanillin from sulfite waste liquor.
5. Production of wood sugar in Germany and its conversion to yeast and alcohol.
6. Summary of investigators reports on technical industrial forest products developments in Germany.
7. Veneer and plywood manufacturing techniques and machinery observed in western Germany.
8. Wood carbonization industry in Germany.
9. Wood and cellulose research in Germany.

Apropos the Michigan Society of Architects summer conference at Grand Hotel, Mackinac Island, on August 2 and 3, we note in the Michigan Bulletin's August 20 report that George D. Mason, F.A.I.A. emeritus, dean of Detroit architects, was architect of the Grand Hotel in 1887. The hotel operator was John Plank. Associated in building the hotel were Commodore Cornelius Vanderbilt, Chauncey Depew, George M. Pullman, the Pennsylvania R.R. Co. and the D. & C. Navigation Company.

Mr. Mason's 90th birthday was appropriately celebrated at Detroit in the presence of the birthday child on July 4.

The La Salle Hotel Fire in Chicago is "A Critical Comment" written by Architect Louis Guenzel of Chicago and published August 15. The pamphlet may be had for 15 cents by addressing Mr. Guenzel at 879 North State Street, Chicago, Ill.

Robert D. Burbank and Charles Du Bose, New York architects, have been awarded first prize in a competition for design of a new "legislative palace" for Ecuador to be built at Quito. The winning plan shows a 9 story building, 300 feet long, cost estimated at about \$1,050,000.

Chronology in U. S. Iron & Steel Construction

In 1840 John Roebling made his first wire rope. In the same year the first bridge in America made entirely of cast iron was constructed across the Erie Canal at Frankfort, N.Y. In 1845 the first all-iron railroad bridge was built for the Philadelphia & Reading R.R. at Manayunk, Pa. Prefabricated cast iron houses were proposed for shipment to California in 1849.

The Phoenix Iron Company was marketing in 1862 a patented wrought iron column for building use. The first elevated railroad in New York City was built in 1866. The dome of the Capitol at Washington, finished in 1865, was of cast iron and weighed 4500 tons. The period 1878-1888 marked the height of the era of the "elevator building", though one of the biggest, the 17 story Monadnock Block in Chicago, was built in 1890. With the completion of the Brooklyn Bridge in 1883, the use of iron and steel cables had become established.

The first practical, though embryonic, application of "skeleton" construction was by Architect W. L. B. Jenney in the Home Insurance Building in Chicago in 1888. In 1891 about 4000 tons of steel were put in the Masonic Temple in Chicago. This 20 story building was the highest yet planned.

—Steel Facts

"For a nation with our proud record of architectural and engineering achievements, we have the worst theaters of any country in the world." —Jo Mialziner, New York.

Claude Bragdon, architect, artist, author, lecturer, died New York City September 17, aged 82. Bragdon was born in Oberlin, Ohio. Awarded a M. Arch. degree by the U. Michigan he later practiced architecture in Rochester, N.Y. where he became architect of the N.Y. Central R.R. Station and Rochester Chamber of Commerce. For Walter Hamann's productions Bragdon designed stage sets for no less than six important plays. In 1915 he delivered the Scammon lectures at Chicago Art Institute; was author of 18 published books, some on art, others on religion; medalist of the Architectural League of N.Y.; fellow of The A.I.A.

Richmond Harold Shreve, prominent New York architect died at Hastings-on-Hudson, N. Y. September 10, aged 65. Born at Cornwallis, Canada, Shreve came to U.S.A. in 1888. He was naturalized 1906, graduated from Cornell U. in 1902 with a B. Arch. degree and entered the office of Carrere & Hastings, New York architects, in 1906. In 1920 that firm became Carrere & Hastings, Shreve & Lamb and in 1924 the firm became Shreve & Lamb, which continued into 1929 when it became Shreve, Lamb & Harmon which it remained to the present writing. Among prominent works of Mr. Shreve and associates are Empire State, Bankers Trust Co., Standard Oil, all buildings in New York City; academic and dormitory buildings for Cornell University; R. J. Reynolds Tobacco Co. office building, Winston-Salem, N.C. Mr. Shreve was chairman of the board of design and chief architect for Parkchester, Metropolitan Life Ins. Housing Project. He was made a fellow of The American Institute of Architects in 1932 and its president 1941-1943.

Peter Brust, Milwaukee, Wis. architect, died in that city June 22, aged 76. After earlier experiences in offices of Milwaukee architects, Peter Brust and Richard Philipp formed partnership Brust & Philipp, Architects, in 1906. The Marshall & Illsley Bank Building, Milwaukee, is the work of this firm. Later Mr. Brust practiced alone until 1927 when Mr. Brust made his two sons his partners in the firm of Brust & Brust. This firm was architect for Sacred Heart Sanatorium and many churches, schools and hospitals.

Peter Brust was president for three terms of Wisconsin Chapter, A.I.A., made an F.A.I.A. in 1923 elected A.I.A. director for Illinois-Wisconsin in 1940. He had served on the Wisconsin Board of Examiners of Architects and Professional Engineers.

Paul Frederick Olsen, Chicago architect, died in Swedish Covenant Hospital, Chicago, after a lingering illness, on August 2, age 56 years. Mr. Olsen was born in Chicago. He was licensed to practice architecture in Illinois and Michigan in 1913. Apartments and residences were his major practices. Vista Homes Apartments (17 stories), 3901 Oglesby Avenue (11 stories), 7020 Jeffrey Avenue and 707 Junior Terraces all in Chicago, are numbered among his architectural works. Mr. Olsen was a member of the Illinois Society of Architects from October 1914.

Charles Gerhard Beersman, architect long identified with Chicago, died July 29 in Grove Point, Connecticut, age 57. Born in San Francisco, Cal., had his architectural training there and came to Chicago in 1919 to play a part in the office of Graham, Anderson, Probst & White in the design of the Wrigley Building, Union R.R. Station, Continental Illinois National Bank and Federal Reserve Bank, all in Chicago. From 1930 to 1936 he was assistant professor of architecture at Armour Inst. of Technology. At the time of his death he was associated with the firm of New York architects Fellheimer and Wagner. While in Chicago he was a member of the Ill. Society of Architects and of the Chicago Chapter A.I.A.